EXHIBIT "N"

the Clerk of the Court, was examined and testified as follows:

THE CLERK: The sworn witness is Michael Sikirica, S-I-K-I-R-I-C-A.

DIRECT EXAMINATION

BY MR. GLASS:

Q. Good morning, Doctor.

A. Good morning.

Q. Would you be kind enough to introduce yourself to the Court and jury, please?

A. Yes. My name is Michael Sikirica.

Q. And are you currently employed, Doctor?

A. Yes.

Q. And what is the nature of your employment?

A. Well, I'm employed as the medical examiner for Rensselaer County, and I'm also self-employed providing autopsy services to about 15 other counties in the Capital District and Upstate area.

Q. And how long have you been employed as the medical examiner for Rensselaer County?

A. Since September 1, 2001.

Q. Is that a political position that you run for, an elected office, or do you become medical examiner by some other process?

A. Yes. It's an appointed position. It's not an elected position.

Q. Would you tell us, what does the medical examiner do?

A. Well, the medical examiner supervises the investigation and autopsies of deaths that occur in the county that fall under the jurisdiction of the medical examiner.

Q. If you would be kind enough to tell us what your educational background is, Doctor? What's your -- where did you go to college?

A. I went to college at the State University of New York at Oneonta, and I eventually went to medical school, graduating from the University of Buffalo.

Q. And your undergraduate degree is in what discipline?

A. Biology.

Q. When did you graduate from medical school?

A. 1989.

Q. And upon graduating from medical school, did you do any post-graduate training or education?

A. Yes. I did a general pathology residency at the Berkshire Medical Center in Pittsfield, Massachusetts.

Q. And any -- besides that, did you do any other graduate medical education or any other residencies or fellowships?

A. Yes. I did a fellowship in forensic pathology in San Antonio, Texas, and attended and did a fellowship in neuropathology at Brown University in Rhode Island Hospital.

Q. Are you presently certified or board certified in any

specialties or subspecialties?

A. Yes.

Q. And could you describe what they are, please?

A. Yes. I'm board certified in anatomic pathology, clinical pathology, forensic pathology and neuropathology.

Q. Would you be able to briefly describe what each one was? First of all, clinical pathology, what is that?

A. Clinical pathology deals with laboratory based pathology, things like blood banking, microbiology, chemistry, things that go on in a hospital laboratory.

Q. Anatomical pathology?

A. Anatomical pathology is also called surgical pathology. It's the type of pathology that deals with analysis of biopsies in tumors, infections that are removed from patients, and it also involves autopsies on hospitalized patients.

Q. And then there's neuropathology. What is that, Doctor?

A. Neuropathology is a subspecialty that deals with the study of the brain, the nervous system and the muscles.

Q. And then, finally, forensic pathology. What is forensic pathology?

A. Forensic pathology is basically the medical/legal investigation of death. It's a type of pathology that involves primarily autopsies, almost all autopsies, to determine the

cause or manner of death in things like trauma, accidents, suicides and such.

Q. And are you currently certified in all four of those areas that you just described?

A. Yes.

Q. And are you required to receive continuing education in order to maintain your board certified status?

A. Yes.

Q. And I'm sorry. You are presently certified in all four?

A. Yes.

Q. Now, I think you just answered this, but is it part of your duties as the medical examiner to perform autopsies?

A. Yes, it is.

Q. And can you tell the Court and the jury approximately how many autopsies you have performed yourself over the course of your career?

A. Over 7,000.

Q. And of those 7,000 plus autopsies, are you able to tell us approximately how many of those have been done on infants or children?

A. Somewhere between 2- and 500, probably, in infants and children; if you consider children up to 17, it would be about 500 probably.

Q. Okay. Infants, it would be less?

A. Yes.

Q. Now, I'm going to direct your attention back to September of 2008. Do you recall whether or not you were called upon in your capacity as medical examiner of Rensselaer County to perform an autopsy on an individual by the name of [redacted]?

A. Yes, I was.

Q. And do you recall that case?

A. Yes.

Q. And do you recall approximately how old [redacted] was at the time of autopsy?

A. He was almost five months old.

Q. And do you recall when you performed the autopsy?

A. That would be on the 25th at about 8:40 in the morning.

Q. That would be the 25th of September?

A. Yes.

Q. And if you know, how long had the child been deceased at the time of autopsy?

A. Well, he died on the 23rd about 11:00 in the morning.

Q. And if you know, why were you asked to perform the autopsy?

A. Well, there was a question of traumatic injury. In this case, it was an infant. We perform many infant autopsies, whether they are traumatic or not, just to determine cause or

manner of death, and it actually fell in the jurisdiction of the Albany County Coroners.

Q. Why is that?

A. Because [redacted] died at Albany Medical Center, and it was transferred back to the jurisdiction of our county, because it appeared to involve mostly happenings in our county.

Q. I see. Before we get into the autopsy itself of [redacted], can you tell us, exactly, what is an autopsy?

A. Well, an autopsy is an external and internal examination of the decedent, combining with analysis of other records, some of which could be important, things like medical records, sometimes written statements, police statements, police reports and analysis of anything else that could be pertinent.

Q. Now, do you recall in this case, before performing the autopsy, whether or not you had the benefit of some medical records or other documentation to review before starting the autopsy?

A. Yes.

Q. And do you recall what kind of records; without telling us what was in them, what kind of records you reviewed?

A. Well, they were his medical records from Albany Medical Center, and also portions of the medical records from Samaritan Hospital.

Q. And do you know why there were records from two

hospitals?

A. Well, Matthew had first gone to Samaritan and transferred over to Albany Med.

Q. I see. So, you had records from both of his hospital stays prior to his being pronounced dead?

A. Yes.

Q. Now, in reviewing the records, what, if anything, did you learn about the condition of [redacted] [redacted] at the time of his death?

A. [redacted] was in extremis when he presented to Samaritan Hospital.

Q. What does that mean?

A. He was in very poor condition. He was very sick. He presented to Samaritan Hospital and was transferred almost immediately to Albany Medical Center. He was -- it was necessary to place him on a ventilator to maintain his breathing. He was given antibiotics. There was evidence of cerebral edema and fluid collections beneath the dura consistent with subdural hematomas.

Q. And this information, where did you derive this information from?

A. From the medical records.

Q. Just so we are all clear, you had no part in treating [redacted] [redacted] prior to his being declared deceased?

A. Correct.

Q. Are you familiar with a term or condition known as sepsis, Doctor?

A. Yes.

Q. What is sepsis?

A. Well, sepsis is basically an infection in the bloodstream, not just the presence of the bacteria, but an actual infection that leads to damage of organs throughout the body.

Q. And from your review of the records in anticipation of the autopsy, did you conclude or did you determine that [redacted] was septic or suffering from sepsis?

A. Well, according to the records that came over from Samaritan Hospital, he did have bacteria in his bloodstream. He had streptococcus pneumoniae bacteria in his bloodstream suggesting sepsis.

Q. Do you know how that conclusion was arrived at?

A. They had drawn blood cultures at the hospital immediately on his arrival, and those cultures later, a few days later, grew out the bacteria. It takes several days sometimes to get a culture, for the bacteria to grow out and identify.

Q. So, at the time he was at Samaritan Hospital, that information was unknown?

A. The exact cause of that was unknown, yes.

Q. From your review of the records, was anything done t

address the possibility of sepsis while he was at Samaritan Hospital?

A. Well, he was treated with antibiotics almost immediately at the hospital in a prophylactic way, because they didn't know what they were dealing with. So, they gave him an antibiotic that would help to fight any sepsis he had.

Q. Do you know if they did anything else to address other conditions that might have existed at Samaritan Hospital?

A. I believe they started giving him medication for his blood pressure, which was falling, and transferred him over as quickly as possible to the PICU.

Q. And would they have given him anything else, such as intravenous solutions?

A. Yes. That would help maintain his blood pressure.

Q. And do you know whether or not he was in respiratory distress at that time?

A. He was going into respiratory distress, yes.

Q. What, if anything, would have been done to address that problem?

A. He would eventually be ventilated, put on a ventilator.

Q. When someone is put on a ventilator, what does that mean?

A. It means that they are not breathing properly enough by themselves, so they need mechanical assistance to provide

oxygen into their lungs, or they have something going on in their lungs where they require an extra amount of oxygen.

Q. Now, did there come a time when you commenced the autopsy?

A. Yes.

Q. And what's the first thing that occurs as you begin an autopsy?

A. Well, we go ahead and we take some measurements of the decedent. In the case of children, we might measure their head circumference, the length of their body, possibly their weight. We record any evidence of medical devices that are on the body. We look for any injuries and document them. We go ahead and take photographs, and we will go ahead and do the internal examination.

Q. And if you recall, did you discover any medical devices on [redacted] prior to commencing the autopsy?

A. If I could refer to a copy of my report, I could describe the --

Q. Do you have that with you, Doctor?

A. Yes, I do.

Q. Please do.

MS. EFFMAN: Is it marked?

MR. GLASS: It's not. Why don't we have one marked?

(Autopsy Report marked People's Exhibit 35 for identification.)

Q. Doctor, I'm going to show you what's been marked as People's 35 for identification and ask if you would take a look at that, please. Do you recognize that exhibit, Doctor?

A. Yes.

Q. What do you recognize that to be?

A. This is a copy of the death -- autopsy report on [redacted].

Q. And is that the instrument you need to refresh your recollection?

A. Yes.

Q. I forget what question I asked you. We were talking about any medical devices on the body?

A. Yes. Well, there was a tube protruding outward from his nostril, his right nostril, a nasogastric tube. He had a ventilator tube coming out of his mouth. There was a catheter inserted into the right neck or an IV line. There were IV lines inserted into each arm, along the antecubital area, which will be on the inside of the elbows. There was another IV line into his left groin. There were multiple small puncture wounds along the right groin where they had drawn blood before. There was a hospital ID bracelet on his right ankle and attached to the right ankle was the name of Dr. Edge.

Q. Doctor, was there anything that you found unusual about the placement or the appearance of any of these medical devices?

A. No.

Q. In addition to the medical devices, did you examine the body for signs of any other unusual conditions, such as trauma, injury or the like?

A. Yes. There was evidence of what we call postmortem organ donation. An incision had been made down the chest wher they had removed organs internally after [redacted] died.

Q. Were you aware of that prior to starting the autopsy

A. Yes.

Q. Now, were any conditions placed upon organ donation?

A. Yes. We didn't want any manipulation of the head or the eyes.

Q. Why is that?

A. Because there was evidence of some traumatic injury to the head.

Q. And did there come a time, not wanting to get too fa ahead of ourselves, but did there come a time when you determined whether or not there was any organ donations?

A. Yes.

Q. And when did that occur?

A. During the autopsy.

Q. And did you determine what, if any, organs had been donated?

A. The organs were kidneys and the liver, portions of the pancreas, as well.

Q. I see. Besides the medical devices and the evidence of organ donation, did you discover any other evidence, visible evidence of trauma, injury or other unusual condition on the outside of [redacted]'s body?

A. No.

Q. Now, once you finish the external examination, what happens next at the autopsy?

A. Well, we go into the internal examination. We basically make a Y incision, and we use part of the incision that's already been made to expose the organs of the chest and the abdomen, and we basically remove each organ one at a time, or in block, and look at each organ closely. We weigh them, measure anything that's of importance and take microscopic sections, which will later be processed for examination under the microscope.

Q. And you did that in this case?

A. Yes.

Q. And can you tell us what, if anything, you discovered upon commencing the internal examination?

A. The internal examination just showed a few cc's of bloody fluid in the cavities of the chest and the abdomen consistent with the organ, heart, basically. The lungs were still in place. They were heavy appearing with a slight pink and green coloration with a little bit of mucoid in the airways of each lung consistent with pneumonia.

The heart was intact. They hadn't taken the heart. That appeared to be a normal size and shape with a little bit of hemorrhage when I sectioned the heart on the endocardial surface beneath it. That is hemorrhage inside the muscle just below the chambers of the heart, and that is basically a minute type of heart attack. The aorta was okay where it remained. The liver and kidneys were removed, and the neck was examined, including a posterior incision along the neck, and there was no evidence of any trauma to the neck.

Q. Okay. Would you describe that condition of the lungs, Doctor, as having evidence of pneumonia?

A. Yes, grossly.

Q. And would that be consistent with the substance that was found on the blood culture?

A. Yes.

Q. So, would it be fair to state that, at the time of death, [redacted] was suffering from pneumonia?

A. Yes.

Q. And can you tell us, in lay terms, what pneumonia is?

A. Pneumonia, of course, is just an infection of the lungs caused by a variety of reasons. Common one is streptococcus and -- the same organism that was found in his bloodstream.

Q. Is that evidence of sepsis or a septic condition?

A. Well, the pneumonia itself could lead to sepsis.

Q. Okay. And what type of infection is pneumonia, or the streptococcus pneumoniae, what type of infection is that?

A. It's a bacterial infection.

Q. Is that contagious?

A. It can be, yes.

Q. Now, you indicated that the lungs were still present. They hadn't been harvested for organ donation?

A. Correct.

Q. And could you tell us why that occurred or why that didn't occur?

A. Well, the physicians at that time knew there was evidence of pneumonia and that he had damage to his lungs, not only from pneumonia but what is called ARDS.

Q. What is ARDS?

A. It's acute respiratory distress syndrome.

Q. Is that a separate disease itself?

A. No. It's just a constellation of things that apply to damage to the lung. It can occur through infection. It can occur from actual ventilation itself; if you receive too much oxygen, it can damage the lungs.

Q. You also described that the heart was still present but you discovered hemorrhages in the heart?

A. Yes.

Q. And can you tell us what, if anything, that means or what's significant about that?

A. Well, it's what we call an agonal event. It's an event that occurs a lot in people when they are kept on a ventilator, when they are very sick and ill, before they die. They may have clotting problems. It was noted that [redacted] di have coagulopathy related to the sepsis that was going on and related to the head trauma I later found, and that all contributed to these things at the end, as well.

Q. So, the fact that there was coagulopathy contributed to the -- I think you described it as mini heart attacks?

A. Yes. Under the microscope were seen to be micro hemorrhages. There's no reason that [redacted] should have a heart attack. His vessels were all fine. His heart was fine, but what had happened was the coagulopathy and the extreme condition that he was in led to these small hemorrhages. His blood wasn't clotting properly and started to leak into the muscles of the heart and later the testes, when I examined the testes.

Q. Are these substantial amounts, large hemorrhages or substantial amounts of bleeding?

A. No. They are not substantial.

Q. Are they visible to the naked eye on gross examination?

A. The one in the heart was.

Q. Is that why the heart wasn't harvested for organ donation?

A. Probably, yes.

Q. Now, Doctor, are you familiar with the phrase trivalvular pulmonary stenosis?

A. Not really.

Q. Well, do you know what pulmonary stenosis is?

A. Sure, sure.

Q. What is pulmonary stenosis?

A. Pulmonary stenosis is a small appearing pulmonary valve which has some evidence of obstruction, usually a clinical evidence that is so small and narrow that the blood doesn't flow out of it properly and causes some blockage.

Q. And is this a life-threatening condition?

A. It could be based on the extent of it.

Q. Now, is there any way to check or to determine whether or not, in fact, this pulmonary stenosis is present?

A. Well, I didn't see any gross evidence of stenosis. The valves appeared normal in size and shape.

Q. Now, did there come a time during the autopsy when you examined the head inside and outside?

A. Yes.

Q. Would you describe for us how you go about doing that?

A. Well, we make an incision across the top of the scalp from the ear to the other ear, and we basically retract the scalp forward and rearward. This allows us to look at the

tissue, which we call the subgaleal tissue. This is basically the scalp tissue outside of the skull.

Q. Did you do that in this case?

A. Yes.

Q. And upon doing that, did you observe anything?

A. Yes. There was evidence of some bruising, what we call subgaleal hemorrhage beneath the scalp, indicating some evidence of blunt force trauma, and there was also some bleeding associated with splitting of the sutures, which are the junctions of the bones in the skull.

Q. I think you testified that the subgaleal hemorrhages are evidence of blunt force trauma?

A. Portions of them were, yes.

Q. And that's on the section of the skull beneath the scalp?

A. Yes.

Q. Was there a corresponding injury on top of the scalp that would have been visible upon gross examination?

A. No.

Q. Why is that?

A. I don't know. Very well, it could be that it was an impact injury against a softer object that didn't leave much impression on the outside.

MS. EFFMAN: I move to strike that, Judge, speculation.

THE COURT: Mr. Glass?

Q. Doctor, based upon your examination of that part of [redacted]' body, do you have an opinion as to how that subgaleal hematoma occurred?

THE COURT: I will sustain the objection and strike the Doctor's previous answer. I will allow him to answer that question.

Q. Do you have an opinion?

A. Yes. It appeared to be a blunt force trauma from an impact by or on an object that wasn't sufficient enough to damage the outer part of his scalp.

Q. Is that an unusual happenstance, Doctor?

A. Not at all with children. Children can have very severe injuries and you don't see a darn thing on the outside.

Q. Doctor, I'm going to show you what's been marked as People's Exhibit 33 for identification. I'd ask you to look at that, please.

MS. EFFMAN: May we approach, Judge, on this?

THE COURT: Yes.

(Sidebar discussion held as follows:)

MS. EFFMAN: It's my understanding that the People are going to be introducing this photograph in evidence, and I would object to it.

THE COURT: What is it?

MS. EFFMAN: It's a picture of the baby's brain

with the skin pulled back. I have no problem with the Doctor looking at it without the jury seeing the picture of it, if he's using it to describe what he observed, but I wanted to address it at this time, because Mr. Glass advised me he's going to be seeking to move this in. We discussed this in advance. And if the picture is shown t the jury, I think it's inflammatory, in light of the fact that, regardless of how the jury finds this child died, for the People to introduce it -- it's difficult for people to look at. It's got the skin pulled back and the actual brain showing. It's highly prejudicial to the Defendant.

(Discussion off the record between defense counsel.)

MS. EFFMAN: Again, as Mr. Frost just stated, any probative value would outweigh the prejudicial effect. This witness can describe what occurred without showing it to the jury.

THE COURT: What's the probative value?

MR. GLASS: There's been substantial testimony throughout the trial, especially on cross-examination, that there were no injuries or trauma visible on the outside of the deceased, and this photograph demonstrates evidence that there were injuries, just not visible. I would respectfully suggest that it's not entirely

inflammatory. First of all, the brain is not visible. It's the scalp.

THE COURT: May I see the picture?

MR. GLASS: Sure.

THE COURT: Okay.

MS. EFFMAN: Simply stated, this witness can describe what he observed, and the picture is merely going to inflame, is inflammatory, and the probative value is definitely outweighed by the prejudicial effect. The witness can describe what he observed without them seeing this picture.

MR. GLASS: It's helpful because the locations of the injuries can be seen by the jury and can correspond to evidence that the People have presented on their direct case regarding banging into a crib and the like, and I think it's highly probative.

MR. FROST: Is this the scalp or is this --

MR. GLASS: That's under the scalp.

MR. FROST: Under the durum?

MR. GLASS: No, no. It's not subdural. They are subgaleal.

MR. FROST: So, it's between the scalp and the durum?

MR. GLASS: Scalp.

MR. FROST: And this is the inside of the scalp,

then?

MR. GLASS: There's the scalp right there.

MR. FROST: I don't fully understand.

THE COURT: Hold on. I'm going to excuse the jury, because I may want to ask the Doctor some questions.

(Proceedings continue in open court as follows:)

THE COURT: Members of the jury, we are going to take a brief recess at this time. I remind you, please do not discuss the case among yourselves or with anyone else. Do not read or listen to any media accounts of this case. Do not visit any premises involved in this case. Do not conduct any research regarding this case. Do not request or accept any payment in return for supplying any information regarding this case. Do not make any judgments regarding this case until you have heard all of the evidence and been instructed as to the law. And if anyone attempts to improperly influence you, please report it directly to me without discussing it with anyone else first. We will take a brief recess.

(Jury excused.)

(Sidebar discussion held as follows:)

THE COURT: Okay. To the defense's point, why is it not sufficient for the Doctor to just explain his findings and then testify without actually showing this to the jury?

MR. GLASS: Because he's going to be able to point out where on the skull the actual injuries were and their differing appearance. This is fresh; this is not fresh. And it's consistent with testimony of the Defendant in his statement of throwing the child into the crib and bumping his head on the rail, old injury versus new injury, and I respectfully suggest it's probative because the location of the injuries may be consistent with that in support of our theory.

THE COURT: Doctor, can you show me where -- are there visible injuries on here?

THE WITNESS: Yes.

THE COURT: Okay. Can you show me, if you are allowed to use this to testify, can you point out to me where the injuries are?

THE WITNESS: Okay. This is looking at the back of the kid's head. It's been pulled back. These injuries right here are due to the splitting of the suture that separates the bones. This injury here is an older bruise on the scalp.

THE COURT: And your testimony would be that that injury was caused by --

THE WITNESS: By blunt force trauma.

THE COURT: Ms. Effman, Mr. Frost?

MS. EFFMAN: I think the demonstration of where

this was could easily be done with a diagram of his skull and not using -- it could be marked and shown the location of what he observed. This is -- again, it's highly inflammatory, this kind of picture with the skin pulled back. It appeals to the people's sympathy and is prejudicial to the defense, and I think the probative value outweighs the prejudicial effect. I think the best way to resolve it, or neutral way to resolve it is have a picture. I know the Doctor has something in his notes, a picture of the skull, and he can simply make a mark of what he observed without having to show this picture to the jury.

MR. FROST: He can also indicate by pointing to his own head. This is above the actual bone of the skull?

THE WITNESS: Yes.

MR. FROST: And these, you say, are due to the expansion of the fontanelle?

MS. EFFMAN: The swelling.

THE WITNESS: Yes.

MR. FROST: This is not a subdural or anything like that?

THE WITNESS: No.

MR. FROST: Do you have an opinion as to age?

THE WITNESS: Older than the others, no definitive age.

THE COURT: Okay. I think I understand everyone's position.

MR. FROST: Can I have one minute?

THE COURT: Yes.

MR. FROST: Can you indicate on the exterior of your own head where this is?

THE WITNESS: Yes.

MR. FROST: Where would it be?

THE WITNESS: It would be right here (indicating).

MR. GLASS: Your Honor, I think, first of all, there's no exposed organs. I recognize that it's a little unpleasant.

THE COURT: It's quite graphic.

MS. EFFMAN: This has nothing to do with why we are here? This is hospital related or from laying in the bed?

THE WITNESS: That's the autopsy.

MS. EFFMAN: That's inflammatory. It has nothing to do with the cause of death, this line here, and it can cause the jury to speculate there's some kind of cutting or some kind of splitting of the skin as a result of trauma.

MR. GLASS: Your Honor, I think a cautionary instruction about the passion and prejudice and the

graphic nature of these types of photographs, which are not uncommonly introduced at homicide trials, which this is, can be given to the jury. And again, it's the defens that has been raising this issue of no visible injury. W are entitled to rebut that, and this is a classic example of doing that, and it's much more probative to have the real thing than to have a doctor demonstrate or anybody else demonstrate.

THE COURT: I understand both sides' positions. I'm going to take a brief recess. I'm going to go back u into chambers to look into this a little bit, and I will be back with a decision. I'm going to take the photo wit me.

(A brief recess was taken.)

(Proceedings continue outside the presence of the jury as follows:)

THE COURT: Please be seated. Okay. Addressin the objection that the defense raised to the anticipated admission of the autopsy photograph, the Court finds as follows: The Court acknowledges that photographs of this nature could arouse passion of the jury and, therefore, may not be admitted unless they tend to prove or disprove a material fact in issue. In this case, throughout this trial, defense has contested the nature and extent of the injuries suffered by the alleged victim, thus the Court -

thus, having balanced the probative value versus the possible prejudicial effect, the Court finds that the photograph in issue here is relevant to a material fact in issue, namely, the nature and extent of the injuries suffered. And, therefore, the photograph will be ruled admissible. If the defense would like, the Court will give the jury a cautionary instruction before they see the photograph advising them that they are not to make any emotional judgment based on what is depicted in the photo, and the Court would further remind the jury that they may not consider any passion, sympathy or prejudice when time to deliberate on this case comes. Would the defense like that cautionary instruction to be given?

MS. EFFMAN: Yes, Judge. I would like the record to reflect our objection to the admissibility of that photograph.

THE COURT: You would like the precaution to be given to the jurors?

MS. EFFMAN: Yes, please.

THE COURT: Anything further from the People?

MR. GLASS: Nothing further.

THE COURT: Bring the jury out, please. Mr. Glass, could I hand this back to you? Before it's going to be published, allow me to instruct them as I have indicated.

(Whereupon, the jury entered the courtroom.)

THE COURT: Please be seated. Members of the jury, I want to apologize. The break was a little longer than I anticipated, but I appreciate your patience.

Mr. Glass, you may continue.

MR. GLASS: Thank you, Your Honor.

BY MR. GLASS: (Continuing)

Q. Doctor, I'm going to show you what's been marked People's Exhibit 33 which is now in evidence.

THE COURT: Doctor, can we have you move the microphone back?

THE WITNESS: Sorry.

THE COURT: Thank you. I'm sorry, Mr. Glass. You have offered that into evidence?

MR. GLASS: I have offered it, yes.

THE COURT: And the defense has objected?

MS. EFFMAN: Yes. We object to that. First of all, I don't think there's been a foundation laid for it.

MR. GLASS: I was about to do that.

THE COURT: I thought you referred to it to the Doctor as in evidence.

MR. GLASS: I think I did it prematurely, yes.

THE COURT: Sorry to interrupt you. Please continue.

Q. Doctor, I ask you to look at People's 33 which is

marked for identification. I ask you to look at that exhibit, Doctor.

A. Yes.

Q. Do you recognize that?

A. Yes. This is a photograph taken at the autopsy of [redacted].

Q. And specifically, what is that a photograph of?

A. Well, this is a photograph of the exposed portion of skull after the scalp has been pulled forward and backward at the time of the autopsy, with one of the autopsy technicians holding his head in place, and evidence of some small marks due to the autopsy procedure itself.

Q. And in addition to those marks that were probably caused by yourself during the autopsy process --

A. Yes.

Q. Or your assistant. Are there any other marks that are visible or present in that photograph that are relevant to this case?

A. Yes.

Q. And can you describe what they are?

A. Yes. There is an area of subgaleal hemorrhage or bruising on the right side of the skull looking from the back toward the front, and also a small area of hemorrhage along the top of the skull where the sutures have split.

Q. And what, if anything, does that tell us?

A. Well, the hemorrhage along the top of the skull indicates significant swelling of the brain, and the subgaleal hemorrhage along the right side is consistent with a blunt force injury.

Q. Does that photograph fairly and accurately depict the image that appeared at the time of the autopsy?

A. Yes.

MR. GLASS: Your Honor, I would offer People's 33 at this time.

THE COURT: Ms. Effman?

MS. EFFMAN: Again, note my objection that I placed on the record previously.

THE COURT: People's 33 is received in evidence over objection from defense counsel. Mr. Glass, are you going to seek to publish it at this time?

MR. GLASS: I think I would like to ask one or two more questions.

(People's Exhibit 33 marked for identification received in evidence and marked People's Exhibit 33 in evidence.)

Q. Doctor, the two marks you have identified, the subgaleal hemorrhage on the right side and the other marks associated with the splitting of the sutures, do they appear the same or are they different?

A. They are different in coloration.

Q. And do you know why that is?

A. It's a difference in age of the lesions.

Q. And as far as the marks associated with the splitting of the sutures, what -- can you tell us what age they are or how fresh they are?

A. They appear to be relatively fresh.

Q. And as far as the other subgaleal hemorrhage on the right side of the head?

A. Some are older.

MR. GLASS: At this time, Your Honor, I ask to publish the photograph to the jury subject to the instructions of the Court.

THE COURT: Members of the jury, the photograph that you are about to see is graphic in nature. I want to caution you that you are not to make any emotional judgment based upon what is depicted in the photograph. I also want to remind you that when the time comes for you to deliberate on the case, you are not to consider any passion, sympathy or prejudice that may have arisen throughout this case, including anything that's depicted in this photograph. At this time, Mr. Glass, you may publish the photo to the jury.

(Photograph published.)

Q. Now, Doctor, once the area underneath the scalp was examined, what, if anything, did you do next in continuing on with the autopsy?

A. Well, we wanted to open the skull, of course, so we used an autopsy saw. We opened the skull removing the top half of what we call the calvaria, and we then examined the brain and the coverings of the brain.

Q. And upon doing that, could you tell us what, if anything, you observed?

A. The brain was very, very swollen at that time. It was very edematous. It was pushing at the edges of the bone and the surrounding skull, actually pushing the sutures open. There was extensive splitting of those sutures, and the sutures measured up to one to one and a half centimeters in size when they split.

Q. Is there any significance to that?

A. It indicates severe edema.

Q. And an edema to the layperson means what?

A. Swelling, excess fluid and swelling on the brain. There was approximately 60 ml's of liquid blood clot predominately collected on the right middle portion of the brain and extending along the right temporal and parietal lobe or the right side of the brain. There was a small amount of adherent blood on the posterior fossa, the back of the base of the skull. There was no evidence of any fracturing or hemorrhage above the dura, so there was no evidence of an epidural hemorrhage. There was diffuse subarachnoid hemorrhage, which is hemorrhage beneath the membrane covering

the brain along the basal portion, or the bottom of the brain, and also along each superior portion of the brain.

The brain was removed and it was fixed for quite awhile in form; because it was so soft, it was impossible to really do any thorough investigation.

Q. Now, when you say "fixed," what does that mean?

A. It was basically put in a container with formaldehyde to stiffen it up, so we could section it properly.

Q. Did that ultimately occur?

A. Yes.

Q. When did that happen?

A. That happened several months later.

Q. Why did it take so long?

A. Well, the brain was very soft, and by the time I got to do it, with my schedule, it took awhile. The examination later occurred. We took photographs at that time, as well. Also, when I removed the brain and stored it and tried to fix it, I removed what's called the dura, the lining inside of the skull, which at the time showed evidence of hemorrhage in it, and that was also retained for examination at the time we cut the brain. It's not unusual to save a brain, especially if there's significant damage to the brain, and examining it at a later date when it's had a chance to stiffen up and become fixed.

At the gross examination, when I did go back and look

at it, there was evidence along the occipital cortex of hemorrhaging or bruising along the occipital cortex.

Q. Where is the occipital cortex?

A. The very back of the brain. Again, there was evidence of severe edema. The ventricles, which are the chambers in the brain, were almost completely closed due to swelling of the brain. There was loss of all the normal demarcation of the structures of the brain due to the edema, and there was loss of what we call -- the definition of a cortical ribbon. You couldn't tell the gray matter from the white matter of the brain very easily at this point.

The sections were all taken microscopically. I take small pieces, portions of the brain. We took portions of the dura, and at the same time we had removed the brain, we also removed the eyes, and they were also sectioned at the time of the brain cutting.

Q. Okay. Now, can you tell us why you remove the eyes?

A. Well, there was evidence of, clinically, of retina hemorrhages, which are small hemorrhages that occur in the retina, and I wanted to examine those. So, we took the eyes, as well.

Q. Now, you have described, I think, some blood inside or on the brain when you opened the brain?

A. Yes. There was liquid blood.

Q. Does that type of blood -- or is there a name or

description for that type of bleeding?

A. Well, it was a subdural hematoma. It was a fresh appearing subdural hematoma.

Q. And do you know how large it was?

A. I think around 60 ml's.

Q. That's 60 milliliters?

A. Yes.

Q. And is that a substantial amount of blood?

A. In a child, it is.

MS. EFFMAN: Objection, leading.

THE COURT: Overruled.

Q. Is that a substantial amount of blood, Doctor?

A. In a child, yes, it is.

Q. Let me ask you this, Doctor: The process of fixing the brain, did that change its condition in any way prior to you being able to section it and examine it microscopically?

A. Well, it made it a little bit firmer. It was still very, very soft and fragile, almost breaking apart as we sectioned it. It was not very well fixed after all the time it was given, and also multiple changes are performed to try to stiffen it up a little bit.

Q. But you indicated that there was evidence of edema, swelling?

A. Yes.

Q. I guess my question is: Did the fixing process

contribute to that?

A. No.

Q. So, when you examined it after it had been fixed, it hadn't changed since the autopsy?

A. Correct.

Q. And there came a time when you made microscopic examinations of the sections of the brain?

A. Yes.

Q. What, if anything, did that tell you?

A. Well, it demonstrated that there was inflammation on the surface of the brain.

Q. What does that mean?

A. There was -- there were white cells. There were macrophages. These are the types of cells that clean up hemorrhage and infection. There was, again, areas of hemorrhage in the brain itself. There was evidence of severe edema and what we call hypoxia.

Q. What is hypoxia?

A. The lack of oxygen and blood flow to the brain that leads to cellular damage that you can see grossly and microscopically. There was evidence of inflammation around th eyes and the optic nerve. There was evidence of acute retinal hemorrhages, hemorrhages in the retina of the eye. There was evidence of an acute and more chronic subdural hematoma that was attached to the dura.

Q. When you say acute and chronic, what does that mean?

A. There was evidence that there was an older subdural hematoma there that started to organize and develop capillaries, and evidence of organization, as well as fresh hemorrhage within that and sort of a rebleeding process going on.

Q. Now, were you able to, based upon your training and experience, determine the age of these conditions?

A. Well, there were evidence of fresh subdural hematoma. That liquid blood that was over the skull and over the brain was fresh. There was no organization to that at all. The older injuries appeared to be weeks old.

Q. When you say organization, what does that mean?

A. It means that the clot material is reabsorbed into the body eventually. So, subdural chronic goes through a process of development before it finally disappears, and that has different stages of it. There is eventually a thin membrane that grows over it. In time, that membrane becomes capillary and becomes vascularized. Very small capillaries develop into larger capillaries and, eventually, that turns basically into a small streak-like lesion and has no significance.

Q. And through -- a microscopic examination of that allows you to determine age of it of some sort?

A. To a rough degree, yes.

Q. Could you determine, based upon your examination and your experience, whether or not some or all of those bleeds went back as far as birth?

MS. EFFMAN: Objection, leading.

THE COURT: Overruled.

A. None of the changes go back to the time of birth, microscopic.

Q. Now, you testified a little bit earlier that there was an infection present, sepsis?

A. There was pneumococcal in the blood and sepsis, yes.

Q. What happens when there's sepsis in the body, Doctor?

A. Well, the infection, because it's in the blood, spreads everywhere. It will spread to where ever there could be blood. It travels throughout the blood. It spreads everywhere. It leads to damage of multiple organs.

Q. And did sepsis damage the brain in this case?

A. Well, sepsis was part of the damage to the brain, but the main damage was traumatic injury.

Q. Why do you say that?

A. Because I think the sepsis was a secondary event. I think the trauma came first. I think there were repeated bouts of trauma to this brain that led to pneumonia and, eventually, that pneumonia became sepsis.

Q. Now, what happens to the brain when it's injured? Does it continue to function normally?

A. It all depends on the extent of the injury. People can have brain injuries and have no symptoms. They can have minor symptoms. They can have severe symptoms. It depends on the nature of the injury, of course.

MS. EFFMAN: I would object and move to strike that last answer. There's no evidence that Dr. Sikirica is a cardiologist.

THE COURT: Mr. Glass?

MR. GLASS: Your Honor, he's a forensic pathologist. I think that qualifies him to render such an opinion.

THE COURT: The objection is overruled.

Q. Doctor, do you have an opinion as to the nature -- the trauma present that you observed, whether or not that trauma to the brain caused the sepsis?

A. Well, indirectly, it did, and it is my opinion that it did.

Q. How did it do that?

A. Any trauma, especially with an infant like that, would cause the infant likely to aspirate, to cause him to develop pneumonia. Aspiration is a problem with infants.

Q. And what is aspiration, Doctor?

A. Aspiration is basically swallowing secretions. And any time there's evidence or an event that could lead to altered consciousness, whether it's a seizure, whether it's a

trauma or whether it's an intoxication of something, could cause the child very easily to start to swallow his own secretions, and this would be a common cause of this type of pneumonia. It is a streptococcus pneumonia that began in the lungs, and the same organism was later found in the bloodstream. So, I think the traumatic injury would lead to the development of pneumonia and secondary sepsis.

Q. You are familiar with some of the vital signs and conditions of the baby that were found when he was admitted into Samaritan Hospital?

A. Yes.

Q. You are familiar with those?

A. Yes.

Q. Very low white blood count?

A. Yes.

Q. Is that something that is the result of sepsis?

A. Yes.

Q. And why is that?

A. Well, the cells are being destroyed. Bodily infections are also going to sites of the infection where it's lodged in the body.

Q. And that's -- I think that's a condition known as leukopenia?

A. Correct.

Q. And sepsis can cause leukopenia?

A. Yes.

Q. Can any other condition cause leukopenia?

A. Well, there could be congenital reasons, blood disorders that could cause leukopenia.

Q. Could trauma to the brain cause leukopenia?

A. Trauma to the brain can affect the immune system. It can suppress portions of the immune system, yes.

Q. And you are familiar that, at the time he presented to Samaritan Hospital, his temperature was hypothermic; his temperature was decreasing?

A. Yes.

Q. And could a head injury have contributed to that?

A. Yes. It's a common finding to have severe head injury associated with hypothermia.

Q. And the fact that his blood pressure was low or hypotensive, could head injury or head trauma contribute to that?

A. Yes.

Q. Now, is it also true that these conditions, these signs, are present when there's sepsis?

A. Yes.

Q. Are you able to determine what came first, sepsis or trauma?

A. I think the sepsis was -- came secondary to the trauma.

Q. You also described some hemorrhaging about the retinas, the eyes?

A. Yes.

Q. Is there any significance to that finding, Doctor?

A. Well, again, it can be due to several causes; one would be trauma. A sudden shaking or deceleration could impair the retinal vessels leading to hemorrhage. It can be due to increased pressure, from edema in the brain, which could occur from sepsis or it can occur from the trauma itself.

Q. Doctor, did there come a time when you, to a reasonable degree of medical certainty, made a finding with respect to the cause of [redacted]' death?

A. Yes.

Q. And what was that cause?

A. The cause of death is severe closed head injuries with cerebral edema due to blunt force trauma.

Q. And did you make an official finding of the manner of death?

A. Yes.

Q. And what was that?

A. The --

MS. EFFMAN: Objection, Judge.

THE COURT: On what basis?

MS. EFFMAN: Speculation, Judge.

THE COURT: Overruled.

A. This is a homicide.

Q. And once you made your determination for cause of death and manner of death, what's the next step that you have to take as medical examiner?

A. Well, I have to complete the autopsy report and provide it to the authorities.

Q. And are there any other filings or documents that you, as medical examiner, are obligated to take care of?

A. Well, I do a death certificate.

Q. Did you do that in this case?

A. Yes, I did.

Q. Doctor, what I'd like to show you is People's Exhibit 34 marked for identification and ask if you would look at that.

A. Yes.

Q. Do you recognize that instrument, Doctor?

A. Yes.

Q. What do you recognize that to be?

A. This is a copy of the death certificate on [redacted].

Q. Is that a certified copy?

A. Yes.

Q. And does your signature appear on that?

A. Yes.

Q. And are you responsible for everything that's on that document, Doctor?

A. No.

Q. What part of it are you responsible for?

A. Just the portion of the certifier and the cause of death.

Q. And the other portions, who prepares those, if you know?

A. These all have to be done by the funeral directors, who put the demographics of the deceased down.

MR. GLASS: Thank you, Doctor. Your Honor, at this time, I'd offer People's Exhibit 34.

MS. EFFMAN: I object, Your Honor. The Doctor has testified. This is cumulative to his testimony. Let me see the document. I object, as it's cumulative, and I think the probative value is outweighed by the prejudicial effect, Your Honor.

THE COURT: People's Exhibit 34 marked for identification is received in evidence over the objection of the defense.

(People's Exhibit 34 marked for identification received in evidence and marked People's Exhibit 34 in evidence.)

Q. Doctor, I'd ask you to look at People's 35, the autopsy report. Have you had an opportunity to examine that exhibit, Doctor?

A. Yes.

MS. EFFMAN: What is that?

Q. That's the autopsy report. Is that your original report, or is that a copy, if you know?

A. This is a copy.

Q. Copy?

A. Copy.

Q. Have you had a chance to look at it?

A. Yes.

Q. Is it a fair and accurate copy of the original document -- first of all, did you prepare the original?

A. Yes.

Q. Is that a fair and accurate depiction of the original, as you recall?

A. Yes.

Q. Have there been any additions or deletions or edits made to that instrument?

A. No.

Q. And is it in the same or substantially the same condition as it was the last time you saw the original?

A. Yes.

MR. GLASS: Your Honor, at this time, I'd offer People's 35, the autopsy report.

MS. EFFMAN: I would object. It's cumulative. Again, the Doctor has testified to everything the District Attorney has asked, and I think it goes beyond the scope of his testimony. So, I would object to admission of that

document.

THE COURT: That particular objection is overruled. People's 35 will be received in evidence over objection. Mark it in, please.

(People's Exhibit 35 marked for identification received in evidence and marked People's Exhibit 35 in evidence.)

MR. GLASS: No further questions of this witness at this time, Your Honor. Thank you.

THE COURT: Thank you, Mr. Glass. Ms. Effman?

MS. EFFMAN: Could we approach?

(Sidebar discussion held as follows:)

MS. EFFMAN: Can we take a recess for lunch?

THE COURT: That's fine. We will break now.

(Proceedings continue in open court as follows:)

THE COURT: Members of the jury, we are going to break for lunch at this time. We will break until 1:30. I ask you, please do not discuss this case among yourselves or with anyone else. Do not read or listen to any media accounts of this case. Do not visit any premises involved in this case. Do not conduct any research regarding this matter. Do not request or accept any payment in return for supplying any information regarding this case. Do not make any judgments regarding this trial until you have heard all the evidence and have been instructed on the law. If anyone attempts to

improperly influence you, please report that directly to me without discussing it with any other members of the jury. Enjoy your lunch. We will see you back here at 1:30. Doctor, if I could ask you to remain for one second.

(Jury excused.)

THE COURT: Doctor, as you remain a sworn witness, I'm going to ask you, please do not discuss this case or your testimony with anyone during the lunch break. Thank you, Doctor. Anything else from the People before we break?

MR. GLASS: No, Your Honor.

THE COURT: Anything else from the defense?

MS. EFFMAN: No, Your Honor.

THE COURT: See you back here at 1:30.

(A luncheon recess was taken.)

THE COURT: Ready to bring the jury out?

MR. GLASS: Yes, Your Honor.

THE COURT: Ms. Effman?

MS. EFFMAN: Yes.

THE COURT: Doctor, if I could ask you to take the stand again, please.

COURT OFFICER: Jury is entering.

(Whereupon, the jury entered the courtroom.)

THE COURT: Please be seated. The witness

remains sworn. Ms. Effman, whenever you are ready.

CROSS-EXAMINATION

BY MS. EFFMAN:

Q. Good afternoon, Doctor.

A. Good afternoon.

Q. In terms of the documents or papers you prepared in regards to this case, did you turn over all of those documents to the District Attorney's Office?

A. Yes.

Q. And those documents would consist of your autopsy report, along with any notes you made during the course of the autopsy?

A. Yes.

Q. And then there's the death certificate you prepared. Any other paperwork you have concerning this matter?

A. Well, I have a -- sort of a timeline put together. That's on my own.

Q. Can I see that, please, Doctor?

A. Absolutely.

Q. And when did you prepare this timeline you just handed to me, Doctor?

A. Last night.

Q. Did you prepare that in consultation with the District Attorney's Office?

A. No.

Q. Let's start off, Doctor -- let's talk a little bit about your background. Besides being a medical examiner in Rensselaer County, you are a medical examiner in a number of other counties; correct?

A. No. I'm a coroner's physician in other counties.

Q. In how many counties are you a coroner's physician?

A. I can name 15.

Q. And based on your work as a medical examiner, not every autopsy that you do is a homicide; correct?

A. Correct.

Q. There are a variety of other outcomes that result from autopsies; correct?

A. Yes.

Q. In fact, a number of autopsies have non-homicide features; correct?

A. Yes.

Q. You work closely with the District Attorneys in the counties that you work in; correct?

A. Yes.

Q. And, in fact, a number of those counties, you know the District Attorneys personally; correct?

A. Correct.

Q. You know the District Attorney in Rensselaer County; correct?

A. Yes.

Q. Albany County?
A. No. I don't really know --
Q. Mr. Soares? Do you know Mr. Soares?
A. No. I don't go up there.
Q. Columbia County?
A. Yes.
Q. Greene County?
A. Yes.
Q. Saratoga County?
A. Yes.
Q. And you know some of the assistants in those counties, as well; correct?
A. Correct.
Q. And Doctor, since you have been a medical examiner in 2001, you have never testified for the defense; correct?
A. No, I have.
Q. How many times have you testified for the defense?
A. Twice.
Q. What year was that, Doctor?
A. Last year and 2001.
Q. The sole bulk of your work involves testifying for the prosecution; correct?
A. The sole bulk of my work involves doing autopsies.
Q. And if those involve criminal cases, that involves testifying for the prosecution; correct?

A. Correct.

Q. And Doctor, a number of the cases you have been involved with have gone to trial; correct?

A. Yes.

Q. You had to come into court like you are today and testify about your opinions as to your autopsy examination; correct?

A. Yes.

Q. And some of those cases you have testified in, there have been pathologists that have come in and given opinions that are contrary to yours; correct?

A. Sure.

Q. And would you agree, reasonable people can differ as to certain autopsies?

A. Yes.

Q. And do you believe that you have the last and final word, Doctor?

A. No.

Q. In fact, people can have differing opinions as to cause of death; correct?

A. Sure.

Q. And that happens regularly in your field; correct?

A. I'm not sure about regularly, but it does happen, yes, sure.

Q. From time to time, persons, such as yourself, that

are pathologists disagree with another pathologist; correct?

A. Sure.

Q. And Doctor, in terms of your opinion, do you believe it's important to arrive at an opinion fairly and accurately?

A. Yes.

Q. And do you believe a person should jump to an opinion?

A. No.

Q. And do you believe that it's important to have as much facts as possible before rendering an opinion?

A. To a limited degree, yes.

Q. And as part of your autopsy report you prepared in this case, you weren't provided with all the records concerning the [redacted] baby before you wrote your report; correct?

A. I had additional records before I finished the report from the PICU at Albany Med. I had the medical records from Samaritan and the medical records from his death at Albany Med, but I didn't have any additional record.

Q. And can we agree, obviously, certainly, since the child we are talking about is four and a half to five months old, it would be important to have a clear picture of his health from birth until the time you saw him; correct?

A. It could be, yes.

Q. And for a child such as this child, who was four months old, but only two months gestation, because he was born

early, it would be important to review the birth records; correct?

A. In my opinion, yes.

Q. And, certainly, that would allow you to get a full picture of this child; correct?

A. If you need a full picture, yes.

Q. Your report does not reflect that you reviewed the records from Samaritan Hospital from September 13, 2008. Is that correct?

A. I reviewed -- no. I did not review the 13th records, no.

Q. And are you aware that, on that date, the child went to the hospital and a complaint was made that the child had had a fever along with a rash. Are you aware of that, Doctor?

A. Yes.

Q. And you were not -- you didn't review those records prior to writing your report; correct?

A. Correct.

Q. Your report does not reflect that you reviewed the obstetrical records of the mother of this child before you wrote your report. Is that correct?

A. That is correct.

Q. That is because you did not review those before you wrote your report; correct?

A. Correct.

Q. Fair to say, Doctor, that based on your -- based on the fact those documents were not reviewed by you, you are not aware of any pregnancy complications this mother might have had?

A. I had the child's records when he was born from Albany Medical Center. They came at the same time as the records from the time of his death. So, I did get to review those records.

Q. But you didn't review the obstetrical records of the mother. Is that correct?

A. That is correct.

Q. Would you agree, Doctor, that during vaginal birth, babies can experience intracranial bleeding?

A. They can, yes.

Q. And Doctor, would you agree that pregnancy complications can increase the risk of intracranial bleeding during the childbirth process, especially a vaginal childbirth

A. Yes.

Q. And would you also agree that birth complications ma increase the risk of intracranial bleeding during the birth process, especially a vaginal birth process; correct?

A. Yes.

Q. And would you agree, Doctor, that preeclampsia is a pregnancy complication?

A. Yes.

Q. Can you tell the jury, what is preeclampsia?
A. Preeclampsia is just hypertension accompanying the pregnancy that creates a risk to the mother and infant.
Q. And that can lead to premature birth; correct?
A. Correct.
Q. Would you agree, Doctor, that premature rupture of membranes would be a birth complication?
A. Yes.
Q. Would you agree that twin pregnancy is a pregnancy complication?
A. Yes.
Q. Would you agree that prolonged labor is a pregnancy complication?
A. Yes.
Q. In terms of birth complications, Doctor, would you agree that breach birth or breach presentation could be a birth complication?
A. Yes.
Q. And would you agree, Doctor, that use of forceps during delivery could be a birth complication?
A. Yes.
Q. And would you agree that pulmonary stenosis could be a birth complication?
A. It could be a congenital complication, yes.
Q. And would you agree that morbid obesity could be a

pregnancy and childbirth process complication?

A. Yes.

Q. And all these things can increase the risk of intracranial bleeding during the childbirth process, especially a vaginal childbirth; correct, Doctor?

A. Yes.

Q. The baby you saw was born two months premature; correct?

A. Correct.

Q. And that was around 33 weeks?

A. Yes.

Q. That would put him at nearly two months premature; correct, Doctor?

A. Correct.

Q. And babies who are born prematurely have a lower immunity than a child that's gone to full term; correct?

A. Correct.

Q. And that's because the baby has two less months to get the full antibodies from the mother; correct?

A. Yes.

Q. Are you aware that this child only had his first dosage of a pneumococcal vaccine?

A. Yes.

Q. And would you agree, Doctor, that's a series of shot that happens over the course of the first year or so of the

child's life; correct?

A. Correct.

Q. And because of his age at the time of his death, he wouldn't have been eligible to get a second shot prior to that point in time; correct?

A. Yes.

Q. And that one dose of that vaccine does not protect this child sufficiently from getting a pneumococcal infection; correct?

A. I'm not sure about that vaccine.

Q. And it's true, you are not a specialist in infectious diseases; correct?

A. Correct.

Q. You talked about a number of the organs being donated prior to the time that you saw this child. So, certain organs were not available for your examination; correct?

A. Yes.

Q. The liver and gallbladder were not available for your examination; correct?

A. Correct.

Q. And the kidneys and spleen were not available for your examination; correct?

A. Correct.

Q. And since they were not available for your examination, you don't know the condition of those organs;

correct?

A. Well, it was my understanding that they were transplanted into two individuals and they survived the transplant.

Q. In terms of the adrenals, they wouldn't have been transplanted?

A. No.

Q. Since you didn't examine those, you don't know the condition of the adrenals; fair to say, Doctor?

A. Correct.

Q. Let's talk about your report briefly, Doctor. Your autopsy was done two days after the child had died; correct?

A. Yes.

Q. And you were aware that, prior to the death, the child had been on a ventilator for a couple of days before his death; correct?

A. Yes.

Q. And you didn't file your report immediately after your autopsy; correct?

A. No.

Q. You didn't complete your report. And you didn't fil that in October of '08, either; correct?

A. No.

Q. And that report, in fact, wasn't completed until the end of April, 2009; correct?

A. Yes.

Q. That's some seven months after the actual -- actually, seven months after the actual autopsy; correct?

A. Correct.

Q. It's your testimony, Doctor, it took you seven months to complete an autopsy report in this case?

A. Well, in this case, it did. I had brain cutting to do. I had to wait for toxicologies to come back, and I had a very busy schedule.

Q. Let's talk about the Samaritan Hospital records. You reviewed those records as part of your report writing that you wrote in this case; correct, Doctor?

A. Yes.

Q. And you agree that those records are important as a basis of information to you as a pathologist in knowing the condition of the child when he first got to Samaritan Hospital; correct?

A. Yes.

Q. And those records include blood counts of the child; correct?

A. Yes.

Q. Let's talk about the blood counts. You'd agree, Doctor, when the child got to Samaritan Hospital, he had a dangerously low white blood cell count; correct?

A. Correct.

Q. And tell the jury, Doctor, why white blood cells are important?

A. They are important to fight off infections.

Q. And the white blood cell count for this child was a thousand; correct?

A. Correct.

Q. That's well below what you would expect to see in a healthy child; correct?

A. Five to 10,000 normally.

Q. And when a white blood cell count gets low, Doctor, fair to say that, low like this child's low - white blood cell count was dangerously low - it makes it difficult to fight an infection off; correct?

A. It can become lower because of infection, as well, yes.

Q. And the low level would cause -- can cause it to be difficult to fight off an infection; correct?

A. Correct.

Q. And you are aware, Doctor, that once the child got t Albany Medical Center, his white blood cell count didn't get any better upon arrival; correct?

A. Yes.

Q. And you are aware of the fact that his white blood cell count dropped to 500; correct?

A. Yes.

Q. And that's a life-threatening level; correct?
A. It could be in certain circumstances, yes.
Q. Let's talk about his platelets. When he got to -- despite having a low white blood cell count at Samaritan Hospital, he had a low platelet count, too. Would you agree, Doctor?
A. Yes.
Q. And, in fact, once he left Samaritan Hospital and went to Albany Medical Center, his platelet count dropped lower. You are aware of that, Doctor?
A. Yes.
Q. In fact, it dropped to 29,000 at eight o'clock Sunday night. Is that correct?
A. Approximately, yes.
Q. And that's dangerously low; isn't it?
A. Yes.
Q. What happens when the platelet count gets low, Doctor?
A. You can have spontaneous bleeding in organs.
Q. In fact, you can have bleeding in lots of places in the body if that happens; correct?
A. Correct.
Q. Anywhere in the body; correct?
A. Yes, anywhere.
Q. Let's talk about the baby's temperature. You are

aware that, upon arrival to Samaritan Hospital, his temperature was below normal; correct?

A. Correct.

Q. And during the hour and a half he was there, despite being given warm blankets and a maternity warmer, his temperature continued to drop; right, Doctor?

A. Correct.

Q. And in fact, as mentioned by Mr. Glass, his temperature was hypothermic; correct?

A. Yes.

Q. And that means that this baby was having problems maintaining his body temperature; correct?

A. Yes.

Q. And when the child went from Samaritan Hospital to Albany Med, his temperature didn't get any better upon arrival; correct?

A. Correct.

Q. He remained hypothermic; correct, Doctor?

A. Yes.

Q. Let's talk about his blood pressure. Samaritan Hospital noted that he was in respiratory distress. Are you aware of that, Doctor?

A. Yes.

Q. And that means he has a hard time maintaining his respiratory system; correct?

A. Yes.

Q. In fact, he was on a bag mask and a respirator while at Samaritan Hospital; correct?

A. Yes.

Q. And are you aware that his blood pressure dropped significantly while at Samaritan Hospital?

A. Yes.

Q. In fact, it dropped into the 50's and 40's; correct?

A. Yes.

Q. And that can be life threatening; correct, Doctor?

A. Yes.

Q. And, in fact, are you aware that dopamine was given to this child to help get his blood pressure up; correct?

A. Correct.

Q. And are you aware, despite being given dopamine, the child remained unable to breathe on his own and had to use a ventilator; correct?

A. Yes.

Q. And in fact, Doctor, would you agree that, if Samaritan Hospital hadn't given this child dopamine, it's possible he could have died at Samaritan Hospital?

A. Yes.

Q. In terms of his treatment, are you aware, Doctor, that Samaritan Hospital was treating this child for sepsis?

A. I'm aware that was one of the diagnoses. The other

diagnoses were head trauma.

Q. Are you aware that the medication they gave him was Ceftriaxone? Are you familiar with that, Doctor?

A. Yes. That's a common antibiotic used for wide coverage.

Q. And that medication is also used to treat meningitis; isn't it?

A. Uh-huh.

Q. You are aware, Doctor, that not only did Samaritan Hospital treat this child for sepsis, but Albany Medical Center treated this child for sepsis, as well?

A. Yes.

Q. And, in fact, continued on Ceftriaxone when he got to Albany Medical Center; correct?

A. Yes.

Q. And that's something that is given to treat a bacterial infection; correct?

A. It's given to treat all sorts of bacterial infections, correct.

Q. And obviously, Doctor, you are familiar with a blood culture that was drawn from this child upon his arrival at Samaritan Hospital; correct?

A. Yes.

Q. And that was taken shortly after his arrival; it was taken before 10:00 a.m. on Sunday, the 21st; correct?

A. Correct.

Q. And those results wouldn't have been immediately available to the emergency room doctor, because those take a day or two to come back; correct?

A. Yes.

Q. And based on your review of the Albany Medical Center file, those results were not available to the doctors at Albany Med before they completed their evaluation of this case. Is that correct?

A. Yes. I had to request the results from Samaritan myself.

Q. And the blood culture, the purpose of that is to test for the presence of bacteria; correct, Doctor?

A. Yes.

Q. And in fact, this test came back positive for presence of bacteria, streptococcus pneumoniae; correct?

A. Yes.

Q. Can you tell the jury, what is streptococcus pneumoniae?

A. It's a gram-positive bacteria common in the cavity of the upper respiratory tract, number one cause of pneumonia.

Q. And that means, based on the blood culture result, that this child, upon arrival to Samaritan Hospital, had a bacterial infection?

A. Correct.

Q. And that bacterial infection was present in his body when he arrived at Samaritan Hospital; correct?

A. Yes.

Q. And streptococcus pneumoniae, if not treated quickly can lead to other illnesses and complications; correct?

A. True.

Q. In fact, it could be life threatening for a child who is, although four months old, born two months premature; correct?

A. Yes.

Q. And streptococcus pneumoniae can cause pneumonia; correct, Doctor?

A. Yes.

Q. It can also cause bacteremia, bacteria in the blood; correct?

A. Typically, it occurs in the lungs first. It has to get into the organs somehow. It begins in the lungs.

Q. And that can cause bacteria in the blood; correct?

A. Correct.

Q. What happens if there's bacteria in the blood, Doctor?

A. Well, there is a condition called bacteremia, where you just have bacteria in the blood, or you can have a more severe condition called sepsis.

Q. You can also end up with infection in the membranes

around the brain and the spinal cord called meningitis; correct?

A. You can have meningitis secondary to blood-borne bacteria, sure.

Q. And meningitis, if someone has meningitis, that can cause increased intracranial pressure; correct?

A. Correct.

Q. And increased intracranial pressure can cause retinal hemorrhages; correct?

A. It's one of the causes, yes.

Q. And, in fact, retinal hemorrhages, there are a number of causes of that that have nothing to do with trauma; correct, Doctor?

A. Primary cause is trauma. There are other conditions that cause it, but the primary cause is still trauma.

Q. And those other conditions not having anything to do with trauma include meningitis; correct?

A. Well, I'm sure anything that would -- meningitis would be a very rare cause of retinal hemorrhage. Anything that would increase the intracranial pressure could cause it, such as trauma.

Q. And increased intracranial pressure can be, you would agree, Doctor, the result of meningitis; correct?

A. Yes.

Q. In fact, any condition that causes increased

intracranial pressure can cause retinal hemorrhages; correct?

A. Yes.

Q. And if an infant has meningitis, there could be bulging of the fontanelle; correct?

A. Yes.

Q. And that's the baby's soft spot on the top of his head; correct?

A. Yes.

Q. And Doctor, would you agree that the records from Albany Medical Center indicate the baby had bulging of the fontanelle upon arrival at the hospital? Wasn't that true?

A. Yes.

Q. And a doctor can test for meningitis by doing a lumbar puncture; correct?

A. Yes.

Q. Could you tell the jury, what is a lumbar puncture?

A. It's the insertion of a small needle into the lower back, into the cerebral spine between the vertebrae, usually at about the L-4 level, to withdraw samples for testing.

Q. And what kind of sample is drawn out for testing, Doctor?

A. Cerebrospinal fluid.

Q. In this case concerning [redacted] [redacted], Albany Medical Center did not do a lumbar puncture to test the cerebrospinal fluid; correct?

A. Correct.

Q. Are you aware that Dr. Kardos from Samaritan Hospital did a differential diagnosis at Samaritan Hospital concerning this child?

A. Sure.

Q. And, obviously, the first thing she put on her list, Doctor, was septic shock?

A. Yes, and the second was trauma.

Q. Can you tell the jury, what is septic shock?

A. Septic shock is basically collapse of your circulatory and respiratory systems due to an overwhelming infection in your bloodstream.

Q. And when that happens, blood pressure drops significantly; correct?

A. It can.

Q. You have a low blood pressure?

A. Yes.

Q. Just like this child did; correct, Doctor?

A. Yes.

Q. And septic shock causes the body's systems, as you just explained, to shut down; correct?

A. Yes.

Q. Now, sepsis can cause coagulopathy; correct, Doctor?

A. Yes.

Q. And that's where the body has problems clotting;

correct?

A. Correct.

Q. And that means the body's ability to clot doesn't work right; correct?

A. Yes.

Q. And because of that, bleeding can occur in the body; correct?

A. Yes.

Q. And you can have bleeding in multiple places in the body as a result of coagulopathy; correct?

A. Yes.

Q. In fact, you can have bleeding anywhere in the body because of coagulopathy; correct?

A. Um, yes.

Q. And that bleeding could be widespread throughout the body; correct?

A. Correct.

Q. And this bleeding could be on the brain; correct?

A. It's possible, yes.

Q. It could include the retina; correct?

A. I'm not sure about that.

Q. And in this case, you found bleeding in several part of [redacted] Thomas' body when you did your examination; correct

A. Yes.

Q. You found blood in the myocardium, or the heart;

correct?

A. Yes.

Q. And you found blood in the testes; correct?

A. Yes.

Q. And you found blood in the pleural cavity of the body; correct?

A. That was a gross finding. I wouldn't put much value in that, because that was following the surgical harvesting.

Q. You also found blood in the peritoneal cavity?

A. Same thing. You open that up, so you can't put much stock in that. I would expect to find a little.

Q. Your records reflect there was blood found in the abdominal cavity, as well, Doctor?

A. That is the peritoneal cavity. It's the same thing.

Q. The blood you found in the testes, that's consistent with coagulopathy; isn't it, Doctor?

A. Yes.

Q. And the blood you found in the heart, that is also consistent with coagulopathy; correct?

A. It could be consistent with coagulopathy, or it could be just, basically, a small heart attack, because, basically, the tissues are all starved for oxygen because he's got pneumonia and he's got other problems.

Q. Coagulopathy can be a factor in the cause of the hemorrhage that you talked about being in the heart; correct?

A. Yes.

Q. And in fact, the child that you saw had been maintained for several -- a couple of days on a ventilator; correct?

A. Yes.

Q. And if the child is being maintained on the ventilator and has coagulopathy problems, those problems of coagulopathy would continue until the child is deceased; correct?

A. Yes, but I may also find hemorrhages without a coagulopathy. I can find hemorrhages just as severe in hypoxia, which is lack of oxygen to those organs, would cause the same kind of hemorrhage.

Q. And isn't it true, Doctor, based on the fact -- strike that. During the process by which the child's kept on a ventilator for a few days, the coagulopathy that's occurring in the body would continue while this child is kept alive; correct?

A. Well, the people at Albany Med were trying to address that issue. They were giving him platelets. They were giving him packed blood cells. They were giving him plasma to try to correct some of his bleeding.

Q. Fair to say that during the time period upon which he arrived and the time by which he was pronounced dead, the coagulopathy problem continued until death; correct?

A. Yes.

Q. Are you aware that the records from Samaritan Hospital reflect that the child was exhibiting symptoms of acute respiratory distress? Is that correct, Doctor?

A. Yes.

Q. And those symptoms were also described as being observed by doctors at Albany Medical Center; correct?

A. Yes, Dr. Edge. That's correct.

Q. And acute respiratory distress syndrome can be caused by sepsis or septic shock; correct?

A. It's basically a catchall term. It can be caused by so many things, from pneumonia to sepsis to too much oxygen going to the baby, to all sorts of things.

Q. Certainly, Doctor, there are a host of nontraumatic reasons that cause acute respiratory distress syndrome; correct?

A. Sure.

Q. You are aware, Doctor, from the records from Samaritan Hospital that this child had a very low blood sugar upon his arrival to Samaritan Hospital?

A. Yes.

Q. In fact, it was a reading of 25 based on a fingerprick blood test. Are you aware of that, Doctor?

A. Yes.

Q. And that would be considered hypoglycemic; correct?

A. Yes.

Q. Can you tell the jury, what is hypoglycemia or hypoglycemic?

A. It's a decreased amount of glucose in the blood that can lead to complications and problems.

Q. And what type of complications can hypoglycemia lead to?

A. Well, it can lead to a comatose condition, possibly seizure.

Q. And you are aware, Doctor, from the records of Samaritan Hospital, that the baby was found to be tachycardic at Samaritan Hospital?

A. Yes.

Q. And that a common sign or symptom of sepsis can be tachycardia; correct?

A. It's a common sign of many things.

Q. And many things that have nothing to do with trauma; correct?

A. Yes.

Q. The records from Albany Med reflect this child was suffering from pancytopenia while at Albany Medical Center. Are you aware of that, Doctor?

A. Yes.

Q. And sepsis is also known to cause that condition; correct?

A. Yes.

Q. And, in fact, from your prior testimony, you are aware this child was diagnosed at Albany Med and Samaritan Hospital as suffering from leukopenia; correct?

A. Yes.

Q. And that can be caused by sepsis; correct?

A. Correct.

Q. And the low body temperature we talked about earlier of this child, hypothermia, that can also be caused by sepsis; correct, Doctor?

A. Correct.

Q. Along with the low blood pressure, hypotension, that can also be caused by sepsis; correct?

A. Yes.

Q. It's true, Doctor, that this baby exhibited many conditions consistent with sepsis; correct?

A. Absolutely.

Q. Let's talk about your examination of the [redacted] baby. You did an examination of his neck; correct?

A. Correct.

Q. And that included an external and internal examination; right?

A. Yes.

Q. And externally, there were no bruises, no contusions, no marks; correct?

A. Correct.

Q. And during your internal examination, you found no soft tissue injury; correct?

A. Not around the neck, no.

Q. No muscle injury around the neck; correct?

A. Correct.

Q. No cervical fractures; correct?

A. Correct.

Q. And no cervical or neck injury found; correct?

A. Correct.

Q. And no injury to any of the disks that support the head; correct?

A. Not that I could see grossly, no.

Q. And in fact, you had no indication from any records from Samaritan Hospital or Albany Medical Center that there was any inflammation reported of the neck or cervical tissues; correct?

A. Correct.

Q. And you reviewed the whole skeletal system; correct?

A. Yes.

Q. And based on your review, you found no evidence of any new or old fractures anywhere in this child's body; correct?

A. Correct.

Q. Certainly, Doctor, are you aware that, initially,

Albany Medical Center reported a skull fracture, and later on, it was determined not to be accurate. Would you agree with that, Doctor?

A. Yes.

Q. There is no evidence of skull fracture in this baby; correct?

A. Yes.

Q. Can you tell the jury what it means to strip the dura?

A. Well, to strip the dura is to peel off the lining inside the skull. There's a fibrous band of tissue on the inner surface of the skull called the dura, and it's pretty adherent, so you have to strip it off with a pair of surgical pliers.

Q. And in this case with the [redacted] baby, you, in fact, stripped the dura; correct?

A. Yes.

Q. And when you stripped the dura, you found no evidence of any fractures; correct?

A. Correct.

Q. And you did a thorough external examination of the entire body of this child; correct?

A. Yes.

Q. And based on your thorough examination, there was no evidence of any bruises anywhere on the external of his body;

correct?

A. Correct.

Q. No contusions; correct?

A. Yes.

Q. No gashes anywhere externally on his body; correct?

A. Correct.

Q. And no cuts anywhere externally on his body before you began your procedures; correct?

A. Correct.

Q. Let's talk about the microscopic sections that you prepared as part of your review of this case. You prepared a number of slides in regards to this case; correct?

A. Yes.

Q. And that's done in order to preserve tissues and to be able to view them at a later date; correct?

A. Well, it's done to help the diagnoses.

Q. And from those specimens, it's possible to duplicate those slides onto copies of those slides; correct?

A. Yes.

Q. And those duplicates would tell you the same thing as those original slides; correct?

A. Correct.

Q. In terms of the Slide B10, the section of the dura, Doctor, your report reflects that that showed evidence of a more chronic subdural hemorrhage; correct?

A. Yes.
Q. And chronic means not recent; right, Doctor?
A. Correct.
Q. And that could be weeks old; right?
A. Yes.
Q. Could be months old; correct?
A. I would say less than two months old.
Q. And once there's a chronic subdural, the chronic subdural can rebleed; correct?
A. Yes.
Q. And it can rebleed without any trauma; correct?
A. It can rebleed with no apparent trauma. That's correct.
Q. And the microscopic sections would show whether or not -- would show several layers of a chronic subdural; correct?
A. Yes.
Q. And those layers could be useful in determining the age of the chronic subdural; correct?
A. Correct.
Q. It could be useful in determining how old any of the rebleeds are; correct?
A. It may, yes.
Q. And when a chronic subdural rebleeds, there can be -- there's a process of repair that goes through the tissue;

correct?

A. Yes.

Q. And that would be evidenced in the microscopic sections; correct?

A. It can be, yes.

Q. In talking about the subarachnoid hemorrhage you talked about earlier today, your report notes that pursuant to the sections of the right parietal cortex, that it was resolving; correct?

A. Yes.

Q. And that means it's not new or recent; correct?

A. Correct.

Q. At the same area of the brain where you found a larg number of macrophages; right?

A. Yes.

Q. And basically, based on the appearance of resolving, it could be weeks old; correct, Doctor?

A. Yes.

Q. In fact, it could be months old; correct?

A. Possibly, yes.

Q. And in terms of the subgaleal hemorrhage you talked about, which you testified concerning -- which is related to the photograph you talked about, fair to say, Doctor, true to say, you can't age the subgaleal hemorrhage; correct?

A. Not very definitely, no.

Q. And based on that, you can't tell the jury how old it is; correct?

A. I can say it's more than a couple of days old.

Q. A couple of weeks old is possible; correct?

A. It could be, yes.

Q. Bottom line is, Doctor, you are unable to age that subgaleal hemorrhage; correct?

A. I wouldn't say I can't age it at all. I can say it's not fresh. I can say it's older.

Q. And that means it's not recent?

A. It's not as recent as a couple of days.

Q. In fact, it could be a few weeks old; correct, Doctor? Is that possible?

A. Yes, yes.

Q. And if a subgaleal hemorrhage was caused by high impact, you would expect to see a skull fracture; wouldn't you, Doctor?

A. Not necessarily.

Q. You would expect to see an area of swelling externally on the head?

A. Depends how fresh it is.

Q. If it's fresh, certainly, you would expect to see that; correct, Doctor?

A. You should.

Q. And if it's fresh, you would expect to see a bump

externally; correct?

A. Yes.

Q. Fair to say you are unable to determine the degree of this blunt force trauma you talked about concerning the subgaleal hemorrhage?

A. Concerning the subgaleal, yes.

Q. Could it be caused by being hit with a metal truck? Is that possible?

A. Being hit with a metal truck? I suppose.

Q. It could have been caused by any number of things; correct?

A. Sure.

Q. Are you aware this child -- strike that. As we discussed earlier, you are aware this child was seen by a doctor at Samaritan Hospital on the 13th of September; correct?

A. Yes.

Q. And you are aware that an examination of this child was done externally on that date; correct?

A. Yes.

Q. And that external examination didn't reveal any bruises, marks, contusions, scratches, all those kinds of things, Doctor. Are you aware of that?

A. Yes.

Q. And are you aware that the doctor who saw the child that date felt there was no neglect going on in this child's

life. Are you aware of that, Doctor?

A. Yes.

Q. In fact, doctors, are they mandated reporters?

A. Yes.

Q. So, if a doctor sees a child and suspects abuse, they have a duty to report that to the State for further investigation; correct?

A. Yes.

Q. And are you aware, Doctor, that the doctor who saw this child on the 13th of September, 2008, determined there was no neglect concerning this child and determined it wasn't necessary to notify the State authorities? Are you aware of that, Doctor?

A. Yes.

Q. Going back to the subgaleal hemorrhage briefly, Doctor, what you described as subgaleal hemorrhage, you also noted it had chronic inflammation; correct?

A. Yes.

Q. That inflammation could have been there for awhile; correct, Doctor?

A. It could have been there several weeks, yes.

Q. Now, the subgaleal hemorrhage that you talked about here today, as depicted in the photograph, that's round in shape; correct?

A. Yes.

Q. And the shape of a bruise normally corresponds with the shape of the object that caused it; right, Doctor?

A. I would not say that, no. I would disagree with tha entirely.

Q. Well, Doctor, you are not a pattern recognition expert. Is that correct?

A. Well, I think I am. I am a forensic pathologist. I deal with a lot of pattern injuries. I see a lot of things, and I wouldn't say you would match a bruise to an object. You might match an abrasion, which is a fast injury, but bruises are very nonspecific.

Q. Is it your testimony the object doesn't correspond t the shape of the item or the bruise; correct? Is that your testimony?

A. I'm testifying that it may not necessarily correspond.

Q. But it's possible that the shape of the object would correspond to the shape of the bruise; correct?

A. It's possible, but not necessarily true.

Q. Doctor, you have been involved in cases where someone is hit with a metal pole and the shape of that metal rod, shape of that object corresponds to parts of that, Doctor?

A. Yes. I have dealt with axes, poles, billy clubs, fishing poles, anything you can practically think of, and I would admit, they are pattern bruises, but you can't take a

bruise, a simple bruise under the skin and extrapolate a cause for that. You just can't do it.

Q. In terms of the bleeding in the areas of the split sutures you talked about here today, the splitting of the sutures -- which is top of the head; correct, Doctor?

A. Yes.

Q. That was caused by increased intracranial pressure; right?

A. Yes.

Q. And that increased intracranial pressure causes the fontanelle to expand; correct?

A. It causes the fontanelle and sutures to split, yes, and --

Q. And increased intracranial pressure can be caused by any number of things; correct?

A. Yes.

Q. And that includes meningitis; right, Doctor?

A. Yes.

Q. And that could include coagulopathy; correct?

A. Not directly coagulopathy, no.

Q. If you have bleeding on the brain, that would cause increased intracranial pressure; correct?

A. Yes.

Q. Which could lead to that problem; right, Doctor?

A. Correct.

Q. And this area of hemorrhage you talked about on the fontanelle, that is not directly caused by a blunt force trauma; correct?

A. Not at all.

Q. That has to do with the splitting of the sutures; correct?

A. Yes.

Q. And isn't it true, Doctor, that this child had some conditions that have nothing to do with head trauma; correct?

A. What conditions would they be?

Q. Well, hypoglycemia, that has nothing to do with head trauma; right, Doctor?

A. Not directly.

Q. As well as pancytopenia, that has nothing to do with head trauma?

A. Not directly.

Q. And this child had several problems in his lungs that have nothing to do with trauma; correct?

A. Not directly.

Q. And, in fact, you found numerous signs that this child was sick; correct?

A. Absolutely.

Q. In his respiratory system, you found a slight greenish-pink coloration to the pleural surface of each lung; correct, Doctor?

A. Yes.
Q. And that's a sign of illness; correct?
A. That's a sign of pneumonia.
Q. When you did the autopsy, you discovered that the child's lungs were collapsed; correct?
A. Well, the lungs were collapsed because of the surgical intervention. I can't attribute that to any natural process.
Q. Besides evidence of the pink-greenish coloration, you also found a bilateral congestion in the lungs; correct?
A. Yes.
Q. Is that a sign of pneumonia?
A. It can be, yes.
Q. You also found a small amount of mucoid in the airways of the lungs; correct?
A. Yes. There was some mucoid antibodies, some material in the lung.
Q. And that's a sign of illness, too; correct?
A. Yes.
Q. And, in fact, one of your -- on your autopsy report, you indicated -- one of your conclusions was this child had acute and chronic pneumonia; correct?
A. Yes.
Q. And chronic means not recent. It means it's been there for awhile; correct?

A. Yes.

Q. And persisted over a period of time; correct?

A. Correct.

Q. And that takes weeks to develop; doesn't it, Doctor

A. Yes.

Q. So, that pneumonia could have been there for weeks before this child went to the hospital; correct?

A. It could have been smoldering for weeks, yes.

Q. And the lung sections you took in this case also showed the evidence of acute and chronic pneumonia; correct, Doctor?

A. Yes.

Q. And that means he had a pneumonia for a period of time, could be weeks, smoldering before he went to the hospital; correct?

A. Yes.

Q. And in your sections you took, Doctor, in Slide B11 of the sinus, you noted there was severe acute congestion in the sinus. Is that right, Doctor?

A. Yes.

Q. That's another sign this child was sick; correct?

A. Well, it's a sign of -- could be a sign of sickness or head trauma, as well.

Q. And you found evidence that this child's heart had some damage; correct?

A. Yes.

Q. And you took a number of microscopic neuropathology sections of different parts of this child's body; correct?

A. Well, the neuropathology sections were all from the brain area.

Q. And in terms of the brain, you found evidence of an infection on the brain; correct?

A. Yes.

Q. And that would be evidenced by the fact that there were large numbers of macrophages on the front cortex, parietal cortex and midbrain; correct?

A. There were macrophages, yes.

Q. In fact, your report notes there were a large number of macrophages; correct?

A. Yes.

Q. What do macrophages do?

A. Macrophages are cells that work in the brain to clean up hemorrhage and infection.

Q. Could be there to clean up a bacterial infection; correct?

A. Or acute hemorrhage.

Q. In fact, your report indicates there's evidence of macrophages all over the brain; correct?

A. Many portions, yes.

Q. And I sense that means, Doctor, there was pus on top

of this child's brain; correct?

A. There was, yes.

Q. And apart from the brain, you found evidence of macrophages in the right eye sections; correct?

A. Yes.

Q. And those were in the areas surrounding the optic nerve; right, Doctor?

A. Yes.

Q. And that essentially means that there was pus around the optic nerve area of the eye; correct?

A. Yes.

Q. And that would be -- could be a sign of infection in the area behind the right eye; correct?

A. Yes.

Q. And in fact, your report notes there were abundant macrophages in the sections of the right eye; correct?

A. Yes.

Q. So, we are talking about evidence of infection in a number of parts of the brain, covering this brain with pus, as well as pus around the right eye area; correct?

A. Yes.

Q. And before writing your report -- your report doesn't reflect you did any gram staining of any of the microscopic sections taken at the autopsy?

A. Correct.

Q. You didn't do any of those subsequent to that time; correct, Doctor?

A. Don't have to.

Q. What is gram staining?

A. Gram staining is a way to identify bacteria in the tissues.

Q. And that would allow you to take a closer look at the sections that have been made of the brain and eye area; correct?

A. If it was important to me, and it wasn't at that point, because I knew he had bacteria in his blood. I expected to find bacteria throughout his body if I did gram staining. I didn't even bother, because I expected to find --

Q. Fair to say, no surprise that those sections contained an abundant evidence of infection, because you know there's infection there; correct?

A. I know there's infection there. I never denied there was infection.

Q. Doctor, sepsis is not caused by trauma; correct?

A. Well, it can very well easily be caused by trauma, yes. I would disagree with that.

Q. Doctor, you are not a specialist in pediatric infectious diseases; correct?

A. I am not, true, yes.

Q. And, in fact, sepsis is caused most commonly by a

bacterial infection; correct?

A. Yes. But why does a bacterial infection start?

Q. And it's clear this child was fighting a bacterial infection; correct?

A. Yes, he was.

Q. After all, he's positive for the presence of bacteri in his bloodstream and --

A. He's positive for bacterial infection in his bloodstream. There's no doubt about it.

Q. And he had low body temperature, low white blood cel count, low blood pressure, all things consistent with sepsis; correct?

A. Absolutely.

Q. And Doctor, are you aware that Dr. Kardos, who saw this child first at Samaritan Hospital, has testified that sepsis is the likely problem which caused this child's problems. Are you aware of that, Doctor?

A. It could be one of the problems. It could be, yes. I would agree it's contributory.

Q. And would you agree -- are you aware that Dr. Edge has also testified in this case that he could not rule out sepsis as contributing to this child's cause of death?

A. I would say it contributed to it, as well.

Q. And based on all these conditions, Doctor, we talked about here today - the coagulopathy, the tachycardia,

hypothermia, hypotension, acute respiratory distress, pancytopenia, leukopenia, hypothermia - those are all conditions consistent with sepsis; correct?

A. And other things, as well, possibly.

Q. And Doctor, in preparing your report in this case, you reviewed a ten-page statement of Adrian Thomas prior to writing your report; correct?

A. Yes.

Q. And Doctor, you would agree that you relied on that statement as part of your evaluation in this case; correct?

A. Well, I relied on part of it, yes.

Q. And fair to say, Doctor -- strike that. Doctor, you would agree that, if you didn't have the statement and hadn't reviewed it prior to making your report, your opinion may have been different; correct?

A. Well, I wouldn't know where the sepsis began. I wouldn't have an explanation of who did what, but I would have the same conclusion.

Q. And certainly, your conclusions would include that sepsis cannot be ruled out as causing this child's death; correct?

A. Sepsis did not cause this child's death.

Q. And certainly, you can't rule out that sepsis is a contributing cause of this child's death?

A. It would be fair to say that, yes.

Q. You stated earlier today that sepsis could be inherently caused by trauma by the baby aspirating and gettin pneumonia; didn't you, Doctor?

A. Yes.

Q. You have no evidence in the records provided to you by Samaritan Hospital that this baby aspirated; do you, Docto:

A. No.

Q. And the statement you made about trauma causing sepsis is pure speculation; isn't it, Doctor?

A. No. It's a reasonable statement.

Q. And again, Doctor, you are making these conclusions, but you are not a specialist in infectious diseases; correct, Doctor?

A. I'm a specialist in putting pieces together. Yes, I am not an infectious disease specialist. That's true.

Q. And that would be an important part of the puzzle ir assessing the severity of infection and what impact it had on the body; correct?

A. It may be, yes.

MS. EFFMAN: One moment, Your Honor. If I coul have two or three minutes, Judge?

THE COURT: Take your time.

Q. In terms of your autopsy report that's been received in evidence, Exhibit 35 in evidence, your autopsy report doesn't make any mention of sepsis; correct?

A. Correct.

Q. It's true, Doctor, you are only mentioning this now because the defense has raised sepsis; correct?

A. Well, not really. I didn't think it was a significant finding, not -- to put in the report. It was an expected finding.

Q. Well, fair to say that, prior to this trial, you have had conversations with the District Attorney's Office and been apprised of the defense claiming sepsis; correct?

A. Absolutely.

Q. And now you are in court testifying today that sepsis could have been inherently caused by trauma by the baby aspirating; correct?

A. Yes.

Q. And you have no evidence in front of you that this baby aspirated; correct?

A. The baby had a pneumonia. Pneumonia is associated with aspiration.

Q. And there's nothing in the Samaritan Hospital records that indicated this baby was aspirating; correct?

A. I don't know how long they looked. They only saw him one day on the 13th. How do they know?

Q. And when you took a look, as part of your examination, took a look at the external portion of the head, you saw no black and blue marks; correct?

A. What does that mean, black and blue?

Q. You saw no bruising externally on the head?

A. That's correct.

Q. And if there had been an external bruise, those kinc of things take weeks to resolve; correct?

A. Yes.

MS. EFFMAN: Nothing further.

THE COURT: Thank you. Any redirect?

MR. GLASS: Yes, Your Honor, hopefully briefly.

REDIRECT EXAMINATION

BY MR. GLASS:

Q. Doctor, you were asked initially on cross about all the things you do and the places you go as a forensic pathologist. Do you recall that testimony?

A. Yes.

Q. I think you testified you are a coroner's physician in 15 other counties?

A. Yes.

Q. You are the medical examiner of Rensselaer County?

A. Yes.

Q. Is that correct? Are you being paid for your testimony here today, separately from your medical examiner's salary?

A. No.

Q. Paid separately for any of the additional work you

have done on this case?

A. No.

Q. Now, you testified that - I think just on cross - that, occasionally, there can be intracranial bleeding as a result of a vaginal birth?

A. Absolutely.

Q. Could you describe the type of bleeding or hemorrhage that would ordinarily occur as a result of the vaginal birth?

A. These are described as very small hemorrhages, streaks of blood, a few macrophages, no significant subdural hematoma formation, just a small stain, almost as you might expect to find on the inner portions of the dura in these infants.

Q. Did you see any evidence of that in your autopsy?

A. No.

Q. The hemorrhaging, the hematomas that you saw in the brain during the autopsy, were those consistent with hemorrhaging from vaginal birth?

A. No.

Q. Are you familiar with the birth records of the deceased?

A. Yes.

Q. Do you know whether or not any testing was done to determine whether there had been intracranial bleeding as a result of the vaginal birth?

A. Yes.

Q. And what was the results of that testing?

A. The results were done -- well, seven to ten days after birth, and I saw no evidence of any bleeding on the skull.

Q. Now, a lot of the testimony and a lot of the questions that you were just asked dealt with the prospect of whether something could indicate sepsis. Leukopenia, that could indicate sepsis?

A. Yes.

Q. Hypotension?

A. Yes.

Q. Hypoglycemia?

A. Yes.

Q. Let me ask you this, Doctor: Did those conditions, the sepsis, did that cause this child's birth -- or death?

A. No.

Q. There was some talk about coagulopathy. I think you testified that that was being addressed at Albany Medical Center?

A. Yes.

Q. And the infection, the sepsis, that was being addressed medically?

A. Yes.

Q. If you know, could anything else have been done?

A. Nothing.

Q. To address the infection?

A. Nothing.

Q. Does your report deny that there was infection present in this child when he died?

A. No.

Q. I think when you were being questioned on cross-examination, one of the -- one of your responses was also a question. And I think you said, "Why did the bacterial infection start?" Do you recall that?

A. Yes.

Q. Is that something you are interested in?

A. Yes.

Q. Is there any evidence that you found during the course of your autopsy that answers that question, why did the bacterial infection start?

A. The sepsis started because of pneumonia. The blood found in the bloodstream, the bacteria, is the same bacteria that is the pneumonia bacteria. So, we can assume, to a reasonable degree of certainty, that that began in the lungs and spread to the bloodstream.

Q. Do we know how it got in the lungs?

A. The most logical explanation for it getting into the lungs would be repeated head trauma causing this kid to aspirate.

Q. Did you find evidence of that?
A. Yes.
Q. Can you tell us what that evidence is, Doctor?
A. Well, I found pneumonia microscopically and grossly and I found evidence of the acute subdural hematoma and older chronic subdural hematoma, indicating --
Q. What does that indicate?
A. Indicating multiple bouts of head trauma.
Q. Knowing all of the conditions that you were asked about on cross-examination - the leukopenia, tachycardia, hypotension, hypoglycemia, hypothermia - does that change your opinion?
A. No.
Q. As to whether or not the cause of death was something other than what you already reported?
A. They are all caused by the sepsis, which was caused by the pneumonia, which began with the head trauma.
Q. Doctor, based upon what you know about this case and this investigation during your autopsy, did you expect to see any neck trauma?
A. No.
Q. Why not?
A. After talking with the police, it was related in the statement of the Defendant that there was never any shaking to this kid. This kid was slammed down on a mattress repeatedly.

MS. EFFMAN: Objection, speculation, Judge; hearsay.

A. I --

THE COURT: Hold on.

MR. GLASS: I will withdraw that question.

THE COURT: The objection is sustained, and the Doctor's last answer will be stricken from the record.

MS. EFFMAN: Ask the jury disregard that, as well.

THE COURT: The jury is to disregard it. It's stricken from the record. So, you are not to consider it at all in your deliberations.

Q. Doctor, based upon your experience and your participation in the autopsy and the subsequent microscopic examinations, in your opinion, are these baby's injuries consistent with having been slammed down on a mattress at a great force?

MS. EFFMAN: Objection, speculation.

THE COURT: Overruled.

A. Yes.

Q. And are other injuries, in particular, the subgaleal hematoma, is that consistent with being slammed into a wooden rail of a crib?

A. Yes.

Q. Now, many times during your responses to the

cross-examination, you indicated that something was not directly related to sepsis. What do you mean by that?

A. You would probably have to give me an example.

Q. For example, leukopenia is a condition that might be found with sepsis. Is that correct?

A. Yes.

Q. And hypothermia might be found with sepsis?

A. Might be found with sepsis, and it might be found with head trauma.

Q. Coagulopathy might be caused by sepsis?

A. Yes.

Q. Might be caused by something else?

A. Can be caused by trauma.

Q. Would -- one moment, please. Doctor, the bacterial infection, I think you said that's contagious?

A. Yes.

Q. And I think you also indicated it could have been - think your word was - smoldering for some period of time?

A. Yes.

Q. Would that have necessarily manifested itself in some way for it to be seen during that time it was, quote, smoldering?

A. Not necessarily, no.

Q. Is it possible for that disease or that bacterial infection to have been present without exhibiting any signs or

symptoms?

A. Yes.

Q. Is it, based upon your training and experience, is it possible for some condition to have exacerbated that bacterial infection?

MS. EFFMAN: Objection, speculation, leading question.

THE COURT: Overruled.

A. Yes.

Q. Such as?

A. Head trauma.

MR. GLASS: Thank you, Doctor. Nothing further, Your Honor.

THE COURT: Any recross?

RECROSS EXAMINATION

BY MS. EFFMAN:

Q. Doctor, as you sit here today, you don't know if pneumonia caused sepsis or if it was the effect of the sepsis; correct?

A. I don't quite understand.

Q. As you sit here today, you don't know if pneumonia caused the sepsis or was an effect of sepsis; correct?

A. No. I know that pneumonia is the beginning of the sepsis. It doesn't work the other way around.

Q. And when this child got to Samaritan Hospital, he was

a very sick child; correct?

A. Absolutely.

Q. In fact, the lungs were not in good shape; correct?

A. Correct.

Q. And there's no evidence in the records from Samarita Hospital or Albany Medical Center that this child aspirated while in the hospital; correct?

A. Correct.

Q. And your review of this matter, during the course of your autopsy, you have indicated you saw several old bleeds; correct?

A. I saw fresh bleed and I seen older bleed.

Q. In fact, you noted in your report there were several chronic bleeds; correct?

A. Yes.

Q. Meaning not new, meaning they could have been there for several weeks; correct, Doctor?

A. Correct.

Q. And Doctor, as you sit here today, you don't know what caused those older bleeds; correct?

A. I would assume head trauma.

Q. As you sit here today, you do not know what caused older bleeds; correct?

A. At least one of them was caused by head trauma.

Q. Well, you reviewed documents in this case, and your

testimony is that the chronic bleeds could be weeks old; correct?

A. Yes.

Q. Okay. And based on your testimony, other than saying weeks, I think you indicated that the bleed could be up to two months old; correct?

A. Yes.

Q. And intracranial bleeds can be caused by things other than trauma. Isn't that right, Doctor?

A. There are some other things, yes.

MS. EFFMAN: Nothing further.

THE COURT: Mr. Glass?

REDIRECT EXAMINATION

BY MR. GLASS:

Q. Doctor, what is your expert professional opinion as to the cause of the intracranial bleeding that you found in this case?

A. Closed head injury.

MS. EFFMAN: I'm going to object, Judge.

MR. GLASS: Nothing further.

THE COURT: On what basis?

MS. EFFMAN: It's been asked and answered and it's beyond the scope.

THE COURT: Overruled. Did the Doctor answer the question?

MR. GLASS: I believe it was muffled by the objection.

Q. Doctor, could you answer that question?

A. Closed head trauma.

MR. GLASS: Thank you. No further questions.

MS. EFFMAN: Could you read back that last question and answer?

(The previous question and answer were read bac by the Reporter.)

RECROSS-EXAMINATION

MS. EFFMAN:

Q. Doctor, you testified here today that you found evidence of chronic bleeding in Matthew [redacted]; correct?

MR. GLASS: Objection, outside the scope of my last redirect.

THE COURT: Ms. Effman?

MS. EFFMAN: He's talking about intracranial bleeding. He's talking about bleeding, Judge.

THE COURT: Overruled.

A. Yes.

Q. You testified that that chronic bleeding could be weeks or months old; correct, Doctor?

A. Yes.

Q. You are testifying here today that you assume that it was due to trauma, those bleeds; correct?

A. Yes.

Q. And when you say that, Doctor, you are speculating, aren't you, Doctor, because your own testimony says the chronic bleeds could be weeks or months old? Isn't that correct?

A. I'm speculating on what? I don't understand.

Q. You are speculating that all the bleeding you saw in this child is due to trauma. Isn't that true?

A. Yes.

Q. You are speculating; right?

A. Yes, a reasonable speculation.

Q. And your testimony says that the chronic bleeding can be weeks or months old; correct?

A. Yes.

Q. So, when you say all this bleeding came as a result of trauma, you are speculating; aren't you, Doctor?

A. I'm saying the first one, at least the first one. Something caused -- if you are talking about a rebleed, something caused the initial subdural hematoma. You seem to suggest it was birth. I say it's not birth. I say it was trauma some time after birth, and there's probably evidence, in my opinion, there's evidence of repeated trauma, traumatic event to this kid's head.

Q. Your testimony before indicated, Doctor, that once there is a chronic bleed, that it can rebleed to things that are not associated with trauma. That was your testimony;

wasn't it, Doctor?

A. That's true.

Q. And your testimony here today, so we are clear, Doctor, is that the chronic bleed that you observed can be weeks, up to two months old. Isn't that correct?

A. That is correct.

MS. EFFMAN: No further questions.

REDIRECT EXAMINATION

BY MR. GLASS:

Q. Doctor, in addition to chronic bleed, did you find other bleeds?

A. I found an acute bleed.

Q. And --

MS. EFFMAN: I object. This is beyond the scop of cross-examination.

THE COURT: Overruled.

Q. Do you have a professional opinion as to the cause o the acute bleed?

A. Traumatic --

MS. EFFMAN: I'm going to object, Judge. This has been asked and answered several times.

THE COURT: Overruled.

A. Closed head injury.

Q. Caused by?

A. Blunt force trauma.

MR. GLASS: Thank you, Your Honor. Nothing further.

MS. EFFMAN: Nothing further.

THE COURT: Thank you, Doctor. You may step down. All right. Members of the jury, due to some scheduling issues, we are going to break today. That will be the last witness for today. Monday is the holiday, so we won't be back Monday. We will be reporting back here Tuesday morning. We have been starting each day at ten o'clock. Tuesday, we are going to start a slight bit later. We are going to start at 10:30. We will see everybody back on Tuesday morning at 10:30.

Before you leave, please remember, do not discuss the facts, subject matter or anything related to this case either among yourselves or with anyone else. Do not read, view or listen to any accounts or discussions of this case reported by any media. Do not visit or view the premises or place where the charged offense was allegedly committed or any other premises or place involved in the case. Do not research any fact, issue or law related to this case. Do not request, accept, agree to accept or discuss with any person receipt or acceptance of any payment or benefit in return for supplying any information regarding this trial. Do not make any judgment regarding this case until all of the evidence has been presented and